

CLAIMS

1. An incidence probe, intended to measure the incidence of an air stream flowing outside a skin (2), characterized in that it comprises a body (1) situated outside the skin (2) and means of measurement of a stress (5) exerted by the air stream on the body (1).

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2. The incidence probe as claimed in claim 1, characterized in that the means of measurement of a stress comprise elastic means (6) maintaining the body (1) secured to the skin (2), and means of measurement of relative position of the body (1) with respect to the skin (2).

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3. The incidence probe as claimed in one of the preceding claims, characterized in that the body (1) is axisymmetric about an axis (4) substantially perpendicular to the surface of the skin (2).

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4. The incidence probe as claimed in one of the preceding claims, characterized in that it comprises a counterweight (7) fixed to the body (1) and disposed so that the centre of gravity of an assembly formed by the body (1) and the counterweight (7) is substantially situated at the level of the surface of the skin (2).

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5. The incidence probe as claimed in one of the preceding claims, characterized in that the body (1) comprises an axis of inertia (4) perpendicular to the surface of the skin (2), and in that the means of measurement of a stress (5) are distributed symmetrically about the axis of inertia (4).

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6. The incidence probe as claimed in any one of claims 2 to 5, characterized in that the position measurement means comprise at least one strain gauge (10a, 10b) fixed to the elastic means (6) and measuring a strain of the elastic means (6).

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7. The incidence probe as claimed in any one of claims 2 to 5, characterized in that the measurement means comprise a first electrode (11) secured to the body (1) and at least one second electrode (12a, 12b) secured

to the skin (2), the two electrodes (11, 12a, 12b) forming a capacitor varying as a function of the modification of the relative position of the body (1) with respect to the skin (2).

5 8. The incidence probe as claimed in one of the preceding claims, characterized in that the body (1) comprises reheating means.

9. The incidence probe as claimed in one of the preceding claims, characterized in that it comprises means for determining the direction of a
10 stress (5) exerted by the air stream on the body (1).

10. The incidence probe as claimed in one of the preceding claims, characterized in that it comprises means for determining the intensity of a stress (5) exerted by the air stream on the body (1).

15 11. The incidence probe as claimed in one of the preceding claims, characterized in that it comprises at least one pressure tap (20, 21) disposed on the skin (2) in proximity to the body (1).

20 12. The incidence probe as claimed in claim 11, characterized in that it comprises two pressure taps (20, 21) disposed symmetrically with respect to a tangent axis (22) to the skin (2), the tangent axis (22) being concurrent with an axis (4) of symmetry of the body (1), and in that the incidence probe comprises means for pneumatically mixing the air bled off by
25 the two pressure taps (20, 21).

13. The incidence probe as claimed in one of the preceding claims, characterized in that the body (1) is rigid.

30 14. The incidence probe as claimed in any one of claims 1 to 12, characterized in that the body (1) is strainable under the action of the air stream and in that the means of measurement of a stress (5) exerted by the air stream on the body (1) comprise means of measurement of the strain of the body (1).